Concrete Foundation and Slab Inspection Checklist

Project Title:_____

Mark every box with one of the following: ***A-Workmanship is Acceptable; U-Workmanship is Unacceptable; NW-Not Witnessed****. For items marked as "U", list specific deficiencies on the attached sheet.*

☐ Check size and spacing of rebar and stemwall/footing width and depth. Ensure that there is a minimum of 3" between earth and rebar. Stemwall should be centered on footing.

☐ Top of stemwall elevation must be higher than the street gutter elevation by 1 foot plus 2% times the distance from the foundation to the street. (Example: Foundation is 25 feet from street gutter. Height that foundation must be above street gutter elevation = 1 + [25 X 0.02] = 1.5 feet.)

☐ Rebar must be properly supported/tied to maintain its position during concrete placement operations through the use of wire ties (18 gauge or greater), chairs, spacers or other approved supporting devices. Do not allow the use of rocks, wood blocks, or other unapproved material as support for reinforcement. Reinforcement support chairs shall be spaced typically every 5 to 6 feet. Wire tie ends shall be twisted away from concrete surfaces (toward the interior of the concrete stemwall or footer.)

☐ Rebar must be in good condition, i.e., free of loose or flaky rust, mill scale, ice, oil or any other substance that might reduce or destroy its bond with concrete. The cross sectional area of the rebar must not be reduced in any way. Rebar strength shall be as specified in the plans and specification, but not less than Grade 40.

☐ Vertical reinforcement must be minimum #4 at a maximum of 4 feet on center. The foundation must also have at least one horizontal #4 bar (minimum) in both the top of the stemwall and the bottom of the footer.

☐ Check reinforcement lap lengths. Lap lengths must be 12" minimum or per the plans and specifications.

☐ Formwork must be properly braced and supported to prevent "blowouts" or unacceptable deformation of the formed surfaces. All formed surfaces shall be coated with approved form oil before placement of reinforcement so as to avoid coating the reinforcement.

☐ Check anchor bolt layout. Must meet the following requirements:

- Anchor bolts must be ½" diameter minimum.
- Spaced at 6 feet on center along sill plates.
- Must be within 12", but not less than 7 bolt diameters from the end of a sill plate.
- Must be at least 2 anchor bolts on each sill plate.
- Each bolt must be embedded at least 7" into the concrete.

- [ ] Check for required number of foundation vents. International Residential Code (IRC) Section R408.1 requires 1 square foot of vent area for every 150 square feet of floor area and one vent must be within 3 feet of each corner of the building.

- [ ] Check locations and embedment depth of hold down straps per the drawings and specifications.

- [ ] For flat work, ensure that required spacing of contraction and isolation or expansion joints is attained. Typical spacing of contraction joints should not exceed 12 feet on center for slabs and 5 feet on center for sidewalks. Expansion joints are typically spaced at 30 feet on center for sidewalks and curbs & gutters and may also be required where garage slabs abut foundation stem walls.

- [ ] Contraction joints may either be tooled (usually in sidewalks and curbs/gutters) or sawcut (driveways and garage slabs). Depth of contraction joints must be at least one fourth of the slab thickness. Sawing of joints usually takes place between 8 and 24 hours after finishing, but varies depending on the subgrade, concrete mix, and weather conditions.

- [ ] For isolation or expansion joints, the joint filler material must be continuous and full depth for the entire joint length. Otherwise, stress points may arise at points of concrete to concrete contact due to thermal expansion.

- [ ] For slabs with welded wire mesh, do not allow the wire mesh to be “hooked” or pulled up from the bottom of the slab to its prescribed level during placement of concrete. Wire mesh should be supported by chairs or “dobies.”

- [ ] Concrete slabs placed during cold weather (40 degrees Fahrenheit or less) must be kept at 50 degrees or warmer for a minimum of 6 days after placement by the use of concrete blankets or other approved insulation methods.

- [ ] During hot weather (temperatures above 80 degrees F) or during high winds, care must be taken to prevent excessive moisture loss in the concrete which can lead to surface shrinkage cracking. Some methods for preventing moisture loss include spreading wet burlap over the concrete, polyethylene membranes and membrane curing compounds.

- [ ] Do not allow contractors to add water to the surface of the concrete during finishing activities. Adding water to the surface can result in a lower water/cement ratio and thereby lower strength in the top layer which later can be more susceptible to spalling.

- [ ] Contractors should avoid overworking the concrete surface during finishing activities for the same reasons as stated above.

_____ _____

Loan Specialist Date

Concrete Foundation and Slab Inspection Report Comments:

Project Title:_____

Loan Specialist

Date